



REMARKS

The Office Action dated June 13, 2003, included the following rejections, objections, and comments:

1. Claims 21 and 45 were rejected under 35 USC §112 second paragraph as being indefinite.
2. Claims 1-17, 19-24, and 27-64 were rejected under 35 USC §103 as being unpatentable over Alfekri (US 6,001,137) inview of Sudduth (US 5,770,531) and Lebold (US 6,054,399) and Kirk Othmer (pages 598-601).

In response to these rejections, objections, and comments, and in view of the above Amendments, Applicant provides the following Remarks:

1. Rejection of Claims 21 and 45 under 35 USC §112, second paragraph

Claims 21 and 45 were rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant's regards as the invention. It was noted that in Claim 21, line 2, it was not clear if the term "methacylic" should be "methacrylic". Applicant's confirm that the term which should be used is "methacrylic", and has amended the claim accordingly. Additionally, it was not clear what the reference in Claim 45 regarding "first surface". Encompassed since the claim did not state a second surface or other surfaces. Applicant has amended Claim 45 to remove referenced to the "first" surface, and instead has addressed a surface of the textile. Therefore, Applicant respectfully submits that the rejections under 35 USC §112, second paragraph, have been overcome.

2. Rejection of Claims 1-17, 19-24 and 27-64 under 35 USC §103(a)

Claims 1-17, 19-24, and 27-64 were rejected under 35 USC §103(a) as being unpatentable over Alfekri inview of Sudduth, Lebold, and Kirk Othmer. It was asserted that Alfekri describes the addition of an acrylic copolymer which corresponds to the repellent finish. However, Applicant respectfully submits that the acrylic copolymer in Alfekri is not a repellent finish as required by the claimed invention. As stated in Alfekri, the "acrylic-copolymer" is actually a "cationic-acrylic-copolymer" (See column 2, lines 49-52, emphases added). The cationic acrylic copolymer in Alfekri is used as a "binder" (See column 39-55). The cationic acrylic copolymer binder will "help bind the anionic dyes to the fabric, minimizing their spreading" (See column 2, lines 46-49). In contrast, the claimed invention requires a repellant finish. Applicant respectfully submits that the characteristics of the cationic acrylic copolymer binder in Alfekri to help bind the anionic dyes to the fabric is in contrast to the repellant finish component of the claimed invention.

Enclosed herewith is the Avadavat of Inventor Dr. Kirk Vogt and his review with regard to the cationic acrylic copolymer from Alfekri and the repellant finish of the

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claimed invention. As explained by Dr. Vogt, the cationic acrylic copolymer of Alfekri is not the same as the repellent finish of the claimed invention. Additionally, although the specific cationic acrylic copolymer referenced in Alfekri is no longer commercially available, Mr. Vogt located what manufacturers believed is the closest material to that specific cationic acrylic material referenced in Alfekri. Dr. Vogt notes how these chemicals transformed a woven polyester fabric from being generally hydrophobic, to wicking water into the fabric. As noted in the specification of the present invention, it is believed that the repellent properties of the repellent finish prevent the color medium from being absorbed into the textile (see page 4 lines 3-5).

For the above reasons, Applicant's respectfully submits that the cationic acrylic copolymer in Alfekri is not a repellent finish as required by the claimed invention.

Sudduth was cited as describing fabric treatments that enhance softness of textiles by means of chemicals. It was noted that Sudduth described softening chemicals which include silicone and siloxane additives. It was also noted that Sudduth describes "other softeners of cationic polymers which can be quaternary ammonium compounds or others which may be silicone".

However, Sudduth is focused on internal softening of a non-woven web, not the improvement of image printing on a textile, as in the claimed invention. The primary focus of Sudduth is the use of additives which are mixed in the polymers forming the fiber to soften the textile (See column 6, line 48- column 9, line 24). The reference to siloxane in Sudduth was as an additive with the polymers forming the fibers of the textile. (See column 7, lines 15-32). The use of silicone as a surface treatment is only briefly mentioned in column 9, lines 35-36 of Sudduth. As stated by Sudduth, "Softeners may be silicone, anionic, nonionic, or cationic though cationic softeners are preferred". (See column 9, lines 35-37). At no point does Sudduth discuss using a silicone that is a repellent, or combining that silicone with a cationic material. Applicants respectfully submit that there is no teaching or example in Sudduth to combine a cationic material with a repellent finish, even a silicone repellent finish.

Lebold is cited as describing fluorocarbon treated textiles. The purpose of the treatment to apply repellent finish. However, Lebold does not describe the combination of a repellent finish with a cationic material as in the claimed invention. The treated material of Lebold is not to provide a textile with a permanent printed image, as in the claimed invention. Lebold also does not overcome the deficiency of Alfekri by teaching the combination of a cationic material with a repellent finish.

Kirk Othmer is cited as describing various materials that can effect water proof or repellency in a textile. However, there is no teaching or suggestion in Othmer to combine the repellent finish with a cationic material, or to use the materials for the purpose of receiving and permanently affixing an image to a textile.

Applicants respectfully submit that none of Sudduth, Lebold, or Kirk Othmer teach, suggest, or provide a motive for combining a repellent finish with a cationic material. Also, none of these references teach or suggest the use of a repellent finish on a textile which is to permanently receive an image. These references provide no expectation that a textile coated with the combination of the present invention would

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improve the durability of an image printed thereon, as taught by the present invention. Therefore, Applicant respectfully submits that Alfekri, Sudduth, Lebold, and Kirk Othmer does not teach, provide a motive or suggest, the use of a repellent finish with a cationic material on a textile to receive an image, as in the claimed invention. Therefore, Applicant respectfully submits that the claimed invention is not obvious over the cited references.

Applicant having addressed all of the rejections, objections, and comments in the latest Office Action, respectfully requests reconsideration and allowance of the pending claims in view of the above Amendments and Remarks. Applicant respectfully submits that the amendments submitted herewith do not add new matter to the application. In the event that the Examiner believes that the claims would be allowable with minor changes, the Examiner is invited to telephone the undersigned to discuss an Examiner's Amendment.